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EXAMINER
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TSOY, ELENA

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/332,273

Applicant(s)

MIENTUS ET AL.

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 81-114 is/are pending in the application.
- 4a) Of the above claim(s) 111 and 112 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 81-110, 113 and 114 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 19. 6) ☐ Other: \_\_\_\_\_

*Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 11, 2003 has been entered.

*Response to Amendment*

2. Amendment filed on March 11, 2003 has been entered. Claims 42-80 have been cancelled. New claims 81-114 have been added. Claims 81-114 are pending in the application.

*Election/Restrictions*

3. Newly submitted claims 111, 112 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the newly submitted claims 111, 112 are directed to an invention that was claimed by originally presented non-elected claims 39, 40.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11, 112 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 81-85, 91-95, 101, 102, 113** are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller (US 4,532,189).

As to claims 81-84, 92-94, 102, 113, Mueller discloses a multilayer thermoplastic film (See Abstract) comprising:

a thermoplastic core layer 2 having a first side and a second side (See Fig. I), the core layer 2 comprising (See column 5, lines 10-22):

(a) 10-80% linear low density polyethylene (LLDPE) having a density of from 0.910 to 0.925 grams per cubic centimeter (See column 3, lines 57-62; column 5, lines 63-64) or 10-80 % linear medium density polyethylene (LMDPE) having a density of from 0.926 to 0.940 (See column 3, lines 63-68);

(b) 10-80 % ionomer resin such as Surlyn 1601 (See column 6, lines 47-50); and

(c) 10-80 % ethylene vinyl acetate (EVA) (See column 4, lines 1-4);

first and second thermoplastic skin layers 1, 3 comprising 70-90 % ethylene propylene copolymers (EPC) blended with 10-30% LLDPE or LMDPE (See column 5, lines 28-29, 41-47) overlying the first side and the second side of the core layer 2 (See Fig. I; column 5, lines 41-47) so that a composition of the core layer 2 is different than a composition of the skin layers 1, 3. and the core layer 2 and the skin layers 1, 3 are characterized by the absence of PVC.

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The Examiner Note: (1) Surlyn 1601 of Mueller meets all limitations of claimed ionomer because specification as filed discloses Surlyn 1601 as an example of suitable ionomer resin (See specification, page 8, lines 27-32); (2) the skin layers 1, 3 comprising a blend of 70-90% EPC with 10-30% LLDPE or LMDPE are abrasion resistant inherently because it is well known in the art that EPC, LLDPE and LMDPE are abrasion resistant, as evidenced by Buzio et al (US 4,163,080, column 2, lines 38-40) and Hyodo et al (US 4,686,126, column 3, lines 47-53). The multi-layer film is coextrudate (unoriented), which is then oriented (See column 7, lines 23-24).

As to claims 85, 91, 95, 101, Mueller also discloses a 5-layer thermoplastic film (See Fig. II) comprising a core layer 6 comprising formulations of the core layer 2 (See column 6, lines 11-16), intermediate layers 5, 7 comprising 20-80 % LLDPE or LMDPE and 20-80% ionomer (See column 6, lines 24-35) and skin layers 4, 8 comprising formulations of the skin layers 1, 3 (See column 6, lines 20-24). The topcoat layers 4, 8 are clear since they are made from inherently clear formulations of the layers 1, 3, namely, blends of EPC with 10-30% LLDPE or LMDPE. It is the Examiner's position that 5-layer thermoplastic film of Mueller has a structure of claimed film since it has a core layer 6, intermediate ionomer containing layers 5, 7 (which can be viewed as skin layers) on both sides of the core layer 6 and topcoat layers 4, 8 overlying the (skin) layers 5, 7.

Buzio et al (US 4,163,080) and Hyodo et al (US 4,686,126) are applied herein to evidence the inherent properties of polymeric materials.

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*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 90, 100, 103, 104, 107, 108, 114** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of Shoenberg (US 4,643,943).

Mueller, as applied above, fails to teach that the core comprises a light stabilizer at a concentration of about 1,000 to about 10,000 ppm based on the weight of the of core layer (Claims 90, 100, 103); and the first skin layer comprises a light stabilizer at a concentration of about 2,000 to about 20,000 ppm based on the weight of the first skin layer and the second skin layer comprises a light stabilizer at a concentration of about 1,000 to about 15,000 ppm based on the weight of the second skin layer (Claim 103).

Shoenberg teaches that surface layers a thermoplastic film may include from 500-3,000 ppm of ultraviolet stabilizers (See column 6, lines 45-63). Common sense dictates that for better protection, light stabilizers may also be included into a core layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included 500-3,000 ppm of ultraviolet stabilizers into a core layer and skin layers of a thermoplastic film of Mueller with the expectation of providing the desired protection against ultraviolet light, since Shoenberg teaches that surface layers a thermoplastic film may include from 500-3,000 ppm of ultraviolet stabilizers.

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7. **Claims 86, 87, 96, 97** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of Tomiyama et al (US 5,127,974).

Mueller, as applied above, further teaches that the heat-shrinkable thermoplastic film may be combined with other polymeric materials for specific applications (See column 4, lines 35-40). However, Mueller fails to teach that for some applications a layer of a pressure sensitive adhesive overlies the second thermoplastic skin layer and a release liner overlies the layer of pressure sensitive adhesive.

Tomiyama et al teach that a heat-shrinkable thermoplastic film may be combined with a pressure sensitive adhesive and a release liner overlying the layer of pressure sensitive adhesive for releasably wrapping automobile (See column 1, lines 49-51; column 2, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a pressure sensitive adhesive with a release liner overlying the layer of pressure sensitive adhesive to one of skin layers of a heat-shrinkable thermoplastic film of Mueller for making releasable wrapping, as taught by Lin et al.

8. **Claims 88, 89, 98, 99** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of Schreck et al (US 5,716,698).

Mueller, as applied above, fails to teach that the film further comprises an opacifying layer between the core layer and the second skin layer (Claims 88, 98); and the opacifying layer comprises a white pigment (Claims 89, 99).

Schreck et al teach that a thermoplastic packaging film can be made opaque (See column 1, lines 16-17; column 2, line 48) by adding conventional opacifying pigments such as white pigments to at least one of layers of the film (See column 3, lines 44-49, 64; column 4, lines 1-4).

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In other words, the secondary reference is relied upon to show that pigments can be added to a layer in a thermoplastic packaging film to make the film opaque.

Because thermoplastic packaging films can be transparent or opaque as taught by the references, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the pigments of the secondary reference of Schreck et al to at least one of layers (including a layer between the core layer and the second skin layer) in a film of the primary reference of Mueller to make the known alternative opaque packaging film.

9. **Claims 105, 106** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of Shoenberg (US 4,643,943), as applied above, and further in view of Tomiyama et al (US 5,127,974).

Mueller in view of Shoenberg, as applied above, further teaches that the heat-shrinkable thermoplastic film may be combined with other polymeric materials for specific applications (See column 4, lines 35-40). However, Mueller in view of Shoenberg fails to teach that for some applications a layer of a pressure sensitive adhesive overlies the second thermoplastic skin layer and a release liner overlies the layer of pressure sensitive adhesive.

Tomiyama et al teach that a heat-shrinkable thermoplastic film may be combined with a pressure sensitive adhesive and a release liner overlying the layer of pressure sensitive adhesive for releasably wrapping automobile (See column 1, lines 49-51; column 2, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a pressure sensitive adhesive with a release liner overlying the layer of pressure sensitive adhesive to one of skin layers of a heat-shrinkable thermoplastic film of Mueller in view of Shoenberg for making releasable wrapping, as taught by Lin et al.



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10. **Claims 109, 110** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of Shoenberg (US 4,643,943), as applied above, and further in view of Schreck et al (US 5,716,698).

Mueller in view of Shoenberg, as applied above, fails to teach that the film further comprises an opacifying layer between the core layer and the second skin layer (Claim 110); and the opacifying layer comprises a white pigment (Claim 111).

Schreck et al teach that a thermoplastic packaging film can be made opaque (See column 1, lines 16-17; column 2, line 48) by adding conventional opacifying pigments such as white pigments to at least one of layers of the film (See column 3, lines 44-49, 64; column 4, lines 1-4). In other words, the secondary reference is relied upon to show that pigments can be added to a layer in a thermoplastic packaging film to make the film opaque.

Because thermoplastic packaging films can be transparent or opaque as taught by the references, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the pigments of the secondary reference of Schreck et al to at least one of layers (including a layer between the core layer and the second skin layer) in a film of the primary reference of Mueller in view of Shoenberg to make the known alternative opaque packaging film.

### *Response to Arguments*

11. Applicant's arguments with respect to claims 81-110, 112-114 have been considered but are moot in view of the new ground(s) of rejection.

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*Conclusion*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Elena Tsoy  
Examiner  
Art Unit 1762

May 1, 2003